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REPORT [redacted]

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1. The Kirovo Andesite Stone Quarry (Kirovskiy Andesitovyy Kar'er) was located [Enclosure A] just outside of Kirovo, which was about seven kilometers north of Mukachevo [4826N - 2242E]. As far as I know the Quarry had been worked for about 50 years, and there was a considerable amount of andesite in the area. (Andesite was 50X1 shipped by the Quarry in trucks to the Kol'chino RR Station five kilometers northeast of the Quarry, where it was loaded into RR cars.) This Quarry was subordinate to the Trust of Industrial Enterprises (Trest Promyshlennykh Predpriyatiy) [redacted] of the Chief 50X1 Highway Directorate, Council of Ministers, Ukrainian SSR [redacted]

2. There were ten persons on the Quarry's staff [Enclosure B], all of whom were paid out of the budget of the Republic. These positions with basic salaries were as follows: 50X1

[redacted]

b. The Mining Engineer in charge of all mining operations, and deputy to SIMULIK (my position), received a salary of approximately 1,200 rubles per month.

c. A Chief Accountant received 830 rubles per month.

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d. A Norm Setter who was in charge of establishing the norms on various jobs, and keeping a record of their fulfillment, received 600 rubles per month.

e. Chief of Supply and Sales was charged with the procurement of all equipment and supplies and with making contracts for the sale of andesite. His salary was about 600 rubles per month.

f. SIMULIK's secretary earned 380 rubles per month.

g. A Chief Mechanic, who was charged with the overall maintenance and repair of all equipment, received 790 rubles per month.

h. Chief of the mining section received 790 rubles per month.

i. Chief of the stone cutting section received 790 rubles per month.

j. Chief of the drilling and explosives section received 600 rubles per month.

3. Approximately 250 workers were employed by the Quarry in mining and loading operations. These people were all paid out of the budget of the Quarry. The different operations were broken down into the following groups:

a. Those actually working in the digging of the andesite numbered about 40 people. At the head of this group was a foreman who made 600 rubles per month.

b. Approximately 25 to 30 people worked in loading the andesite at various points; at the head of these people was a foreman, who also served as a Party representative, earning 690 rubles per month.

c. About 15 people were employed at the transportation section which was headed by a man making 690 rubles per month.

d. Under the Chief of the drilling and explosives section were about ten workers.

e. Two bookkeepers who acted as assistants to the Chief Accountant each earned 450 rubles per month.

f. The Quarry had four brigade leaders who earned 500 rubles per month.

g. The remainder of the people were engaged in stone crushing operations or splitting the andesite stone into various sizes.

4. All of the workers employed at the Quarry were from the surrounding area, and many had worked there for a number of years, even when the Quarry was under Czechoslovak administration. The workers had fared much better under Czech rule: under the Soviets they earned an average of only 800 rubles per month, and some earned up to 1,200 rubles per month. [Enclosure C].

5. The Quarry had virtually no mechanized equipment while it was under the supervision of the Oblast until 1949. After that time, and up to [redacted] the Quarry received the following equipment:

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a. Two diesel-operated OM-202 (Molotov plant) excavators of one cubic meter each. I believe these excavators were of an old pre-war model, but they rarely broke down and gave us virtually no difficulty, with the exception that the treads would often snap if the excavators had to travel any distance.

b. One bulldozer, whose model I cannot recall, was assigned to the Quarry in 1950; but we had no use for it, and after several months returned it [sic].

c. The Quarry had two compressors used for drilling purposes; one was a transportable compressor called Arpik, which was one of 30 obtained from Belgium in 1950. These compressors, which were diesel operated, worked extremely well for us, but we heard that other quarries had considerable difficulty with them because the mechanics and operators did not know how to use them properly. The compressors were capable of operating four drills for boring holes for the insertion of explosives. One stationary compressor, which was at least 30 years old, was located in the mechanics' shop some distance from the Quarry. This compressor operated two drills.

d. The one stone-crushing machine was a stationary model which ran on charcoal gas; it was a very old Hungarian model which had a sign on it "Ganss Danubyus". This stone crusher, which could handle pieces of andesite up to 15 kg. ground the stone into four sizes: up to ½ cm.; ½ cm to 1½ cm.; 1½ cm. to 2 cm.; 2½ cm. to 6 cm. Most of the stone was approximately 1½ cm. in size. After being crushed, the stone was placed in a circular sorter, and the various sizes dropped into four bunkers each with a total capacity of 100 cu. m. Trucks could then be driven under these bins and loaded by opening a gate in the bottom of the bins.

e. A transportable electric power station, ZhES-9, had originally been driven by a gasoline motor but was changed to operate with diesel fuel. This power unit had a capacity of nine kilowatts and could light about 200 electric light bulbs; it provided electricity for the entire Quarry. 50X1

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f. The Quarry had one tractor, S-80, which was a post-World War II diesel-operated Stalingrad tractor.

g. Nine post-World War II model trucks were at the disposal of the Quarry, and they were all gasoline operated:

(1) Seven ZIS-150, 4-ton mechanical dumping trucks

(2) One GAZ-93, 1½-ton mechanical dumping truck

(3) One ZIS-151, 4-ton standard truck

h. Seven conveyers were used by the Quarry. One of these conveyers was approximately 250 m. long by 60 cm. wide and had been assembled from three conveyers each about 80 m. in length. This conveyer was used for the disposal of clay and other soil on top of the andesite. The other six conveyers were 25 m. in length and 60 cm. in width; four of these conveyers were used at the Quarry and two at the railroad station for loading freight trains. Each of these conveyers had a belt, made of rubber and fiber, attached to steel rollers which ran on roller bearings. At no time did we have any difficulty with the roller bearings on any part of the conveyers. I do not know the model of the conveyers, where they were produced or whether they were built before or after World War II. When we received them in 1950, the conveyers were all new.

i. The Quarry had upwards of 100 mining carts which were used for loading the andesite, but only about 40 of them were ever in use at one time. Each of them had a capacity of .75 cu. m. but actually was loaded with a full cubic meter of stone.

j. The Quarry's repair shop had a number of machines including a lathe, drill press, and milling machine.

6. In mining the Quarry we dug into a hillside on a 250 - 300 m. front after removing the top soil as the shaft progressed. After we had mined andesite to a depth of 30 m. and when we reached the point where the soil on top was 30 m. in depth, we ceased drilling into the hill. Mining regulations called for a 1:1 ratio as the maximum; i.e., since we were mining andesite at a depth of 30 m. and reached the point where the top soil was 30 m. in depth, we had reached 50X1 the maximum ratio of 1:1. After we had reached the 1:1 ratio we returned to our starting point in the hillside and began mining andesite at a depth of 20 m. approval to start mining andesite on another site about 200 m. away from the Quarry site. In the actual mining process, after the top soil had been cleared away, drilling operations were started from the top. Preferably the drilling was done to depths of four meters, the holes being about five meters apart and 32 mm. in diameter. The holes were then packed with 300-400 g. of ammonite, filled with dirt and clay, and detonated at intervals of a few seconds. We always endeavored to extract andesite in large pieces which were more suitable for splitting into cubes.

7. The andesite at this Quarry was of a very good quality. Our Quarry turned out andesite to be used for three different purposes.

a. Very large blocks of andesite were set aside to be used principally in bridge construction.

b. Some of the andesite mined by our Quarry was split into various sizes to be used in road construction. In the summer the andesite had to be split within two or three hours after removal from the ground, because once its natural moistness was lost, it could no longer be split. In other seasons the andesite could be kept for a day or two before splitting, because the natural moistness was not removed by the sun. The andesite was split into cubes of three main sizes:

(1) 4 x 4 x 4 cm., which was used for sidewalks;

(2) 10 x 10 x 10 cm., which was used for road construction;

(3) although larger cubes of various sizes were also made, the most common large size was 25 x 18 x 25 cm. and was used for road construction.

c. The third use for andesite was gravel for roadbed and airfield construction.

8. During 1952 our andesite production averaged 200 - 250 cu.m. during an eight-hour shift. This was more than twice the amount produced in 1947, the reason being that more workers were employed and more equipment had been made available. Up to October 1949 the Quarry belonged to Zakarpatskaya Oblast, and no systematic production plan existed. I do not remember any details about the plan for 1950, except that it was completed 180%. In 1951 the plan called for 1,700,000 rubles of production, and the value of production that year was about 2,100,000 rubles. To illustrate this in terms of actual production, I can quote the following figures:

a. Gravel: 6,000 cu.m. according to the plan, and 13,000 cu.m. produced

b. Cubes split from andesite; 4,000 cu.m. according to the plan, and 5,500 cu.m. actually produced

c. Very large andesite blocks; 10,000 cu. m. according to plan, and 15,000 actually produced

The yearly plan for 1952 called for a 2,200,000 ruble production of andesite, and during the first half of 1952 the plan was completed by a monthly average of 130%. During 1952 the Quarry was expected to produce, according to the plan, 10,000 cu. m. of gravel, 6,000 cu. m. of small sized cubes, and 8,000 cu. m. of large cubes or blocks.

9. The official government prices for andesite gravel in 1952 were as follows:

a. Fifty-one rubles per cubic meter for gravel in sizes up to 2.5 cm., and 45 rubles per cubic meter for gravel over 2.5 cm. in size. In 1947 both sizes of gravel had been priced at 120 rubles per cubic meter.

b. For the medium sized cubes the price was 135 rubles per cubic meter in 1952; in 1947 the price had been 190 rubles per cubic meter.

c. The large blocks of andesite cost 28 rubles per cubic meter in 1952; in 1947 the price had been 100 rubles per cubic meter.

Generally speaking, the Quarry was supposed to keep its total expenses down to between 38 - 45 % of the total value of production. For example, if the total production was worth 1,000,000 rubles, expenditures were supposed to be kept between 380,000 to 450,000 rubles, the rest going to the government.

10. Most of the gravel and large blocks were shipped to military units, particularly to military units located in Stryy, 30 to 40 km. 50X1
50X1 south of L'vov. Stryy also received considerable quantities of andesite from other quarries. The construction of the airfield at Stryy was begun in the Fall of 1951.
50X1 scheduled to receive much of
50X1 our andesite. Airfield construction at Mukachevo and Beregovo in 1950 consumed some of the andesite from our Quarry, but none was sent to these two cities in 1951 and 1952, because
50X1 construction of the airfields had been completed. Others of our consumers were various offices of the Chief Highway Directorate

ENCLOSURES:

A. Location Sketch of the Andesite Stone Quarry (seven kilometers northeast of Mukachevo).

B. Staff of the Kirovo Andesite Stone Quarry.

C. Work Norms and Pay Scales.